



The Bayou Observer

August 4, 2010

SPECIAL OIL SPILL EDITION

Letter From the Editor

On the morning of April 20, the Deepwater Horizon oil rig exploded and sank to the bottom of the Gulf. Since then, estimates indicate that over a billion gallons of oil have been released into the Gulf of Mexico, though thankfully the static kill completed on August 4 has finally stopped the unfettered flow of oil into the Gulf.

WFO LIX has been providing weather forecasts and guidance to the US Coast Guard and other entities since day one in support of the mitigation and cleanup operations. With an increased workload, the Bayou Observer was put on hold in deference to the more pressing decision support services.

This special edition of the Bayou Observer will replace the usual summer

edition. Within these pages, you'll find out what "decision support" means and what we're doing to help the US Coast Guard and BP as they continue to work towards a permanent fix to seal the leaking well and cleaning up the spilled oil

Look for the next edition of The Bayou Observer to be published at the end of the month. The next edition should mark a return to the normal publishing schedule. Special features in the next edition will include a retrospective look at Hurricane Katrina as the 5th anniversary approaches.

Danielle Manning
Editor, The Bayou Observer

Buzzword: Decision Support Services

Since the Deepwater Horizon rig explosion, WFO LIX has been providing Decision Support Services to the U.S. Coast Guard, several NOAA offices, and various other agencies involved in the mitigation and cleanup work. But what ARE decision support services?

Decision Support Service refers to any product or service that helps an official make an informed decision. In the case of the oil spill, here are some of the decision support services that WFO LIX is providing.

Deployed Emergency Response Meteorologists

Since April 27th, WFO LIX has stationed two forecasters at the BP incident command center (ICC) in Houma. These forecasters provide continuous briefings to the incident decision makers. The two of them staff the ICC 24 hours a day, working up to 15 hours each some days. Read more about the Emergency Response Meteorologists in the article "ER-Mets: A Day in the Life" on page 2.

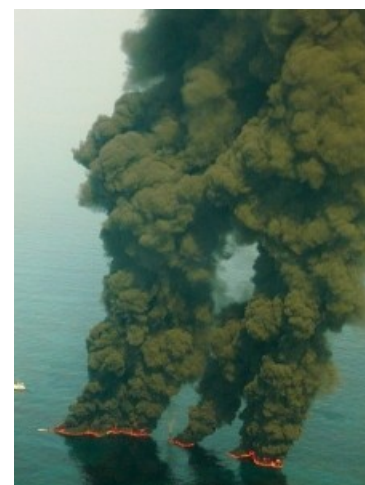
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Above: Ships fight to put out the fire on the Deepwater Horizon Rig.
Below: A controlled burn of oil on the Gulf's Surface May 29.



The Bayou Observer: Special Oil Spill Edition

A Day in the Life of an ER-Met

Since April 27, forecasters from WFO LIX have been deployed at the BP Incident Command Center (ICC) in Houma, LA. Here, Tim Erickson and Mike Efferson outline a typical day at the ICC. Together, they have spent more than 100 days in the ICC and have provided briefings for everyone from individual pilots to Gen. Thad Allen—the U.S. Coast Guard National Incident Commander.



A typical day at the ICC begins at 0600 with a shift change briefing during which the night shift would pass on any important information to the day shift.

The day begins quickly with four briefings or conference calls before breakfast. The first occurs at 0630 and is for the branch directors (who are basically the leaders of for the response efforts in each parish) and covers a basic outline of the expected weather conditions for the next few days. The next is a hurricane alignment call at 0640 with the National Hurricane center and the Unified Area Command (the decision makers one step below Gen. Allen). During this call, we take a look at the extended tropical weather outlook and discuss any features that might enter the Gulf within the next week. At 0700 it's time for a weather briefing to NOAA senior level staff on another conference call. The last early morning briefing occurs at 0715—this time for the environmental unit at the ICC. Once this briefing is finished, it's finally time for a breakfast break.

The break is short-lived, though, as it's back to work by

"TOGETHER, TIM AND MIKE HAVE SPENT OVER 100 DAYS IN THE INCIDENT COMMAND CENTER AND HAVE PROVIDED BRIEFINGS FOR EVERYONE FROM INDIVIDUAL PILOTS TO GEN. THAD ALLEN."

0800 for another conference call with NOAA. Following this call, at 0900, there is a weather briefing at the general staff meeting. This meeting is attended by the operations section chiefs as well as the unified command. At 1000, there is an all-hands meeting attended by everyone stationed at the ICC. Depending on the weather conditions and the potential impacts to operations, there is sometimes a weather briefing at this meeting as well. From 1100 to 1200, the pre-tactics meetings take place. During these meetings, there are weather briefings for both the near-shore and off-shore areas of the Gulf. After these meetings, it's time for a lunch break.

The afternoon gets started just as quickly as the morning. Following lunch, there is a 1300 conference call with the Port of New Orleans. At 1400, there is another weather briefing during the tactics meeting. After this meeting, it's time to check for forecast updates and post all updates to the situation wall in the ICC. Another weather briefing follows at 1630 during the planning meeting. During this meeting the operations and planning sections present their plans to the unified command and the command approves or disapproves. Many of these decisions have relied heavily on the weather briefing from our ER-Mets.

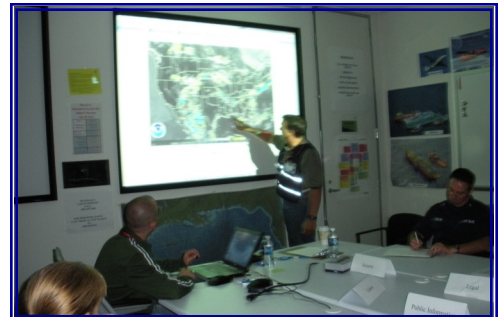
The last briefing of the day takes place at 1730 during an environmental unit meeting. This meeting is followed by one more hurricane alignment call. At 1800 the day shift ends with a shift change briefing for the night shift.

The night shift hits the ground running at 1800, immediately giving individual briefings to all of the pilots scheduled to fly the following day—usually about 5 pilots.

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Left: Mike Efferson briefs the Incident Command
Right: Tim Erickson briefs the Incident Command



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A Day in the Life of an ER-Met, Cont...

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At 2000 it's time for an intelligence meeting during which the pilots and other workers discuss the extent of the observed oil and also present their plans for the next day's flights. During this meeting the ER-Met gives a generalized aviation weather briefing. In many cases, this briefing serves as a "go/no-go" decision making tool for the following days flight operations. This meeting can last up to 2 hours depending on the situation and the plans for the next day.

The next briefing occurs at 2300. This time it's for the incident command and area command as well as the heads of each division. The briefing covers the next day's expected weather at the spill site and along the shoreline where workers continue to clean up any oil along the coastline. Once this briefing is finished, there's a short break for a midnight snack!

Similar to the day shift, this break doesn't last long. While there are no scheduled briefings between midnight and 0300, this is a very busy time of the night. It is during this time that the entire morning's briefing package must be put together and updated. The ER-Met must gather all relevant weather information—from marine forecasts to aviation forecasts and tropical forecasts—and post all updates to the situation wall in the ICC.

The briefing package must be complete by 0300 so that the ER-Met can attend an all-hands briefing at 0330. During this meeting, the ER-Met gives a

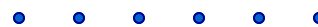
weather briefing to all personnel that are stationed at the ICC in Houma concerning the day's weather and any hazards that may be expected (from heat advisories across the land areas to small craft advisories across the Gulf).

By 0400 the ER-Met must pass on all weather information to the situational division at the ICC so that they can help out by then passing along this information to others saving the ER-Met some time and energy.

Following the 0400 meeting with the situational division, there are no additional scheduled briefings from the ER-Met. However, during this time, it is not uncommon for individuals to approach the ER-Met with weather-related questions. This is also the time during which the ER-Met prepares for the 0600 hand-off briefing.

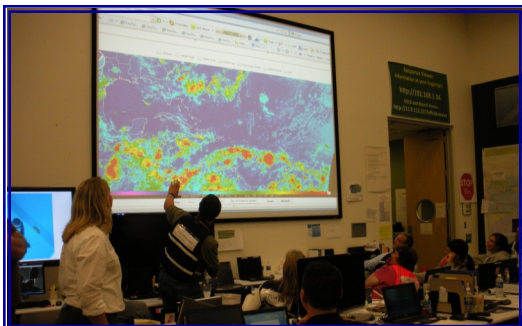
Finally, the night shift comes to an end after the hand-off briefing. This is the same briefing that started the day 24-hours earlier.

"IN MANY CASES, THE ER-MET BRIEFINGS SERVE AS A 'GO/NO-GO' DECISION MAKING TOOL FOR THE FOLLOWING DAY'S FLIGHT OPERATIONS."

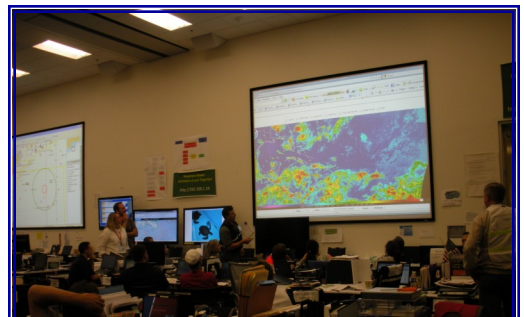


Depending on the weather situation and the planned operations, the ER-Met shifts can last anywhere from 12 to 16 hours. The ER-Mets typically spend 2 weeks at a time in Houma with no days off, then return to the office for a 2 week rotation here.

In addition to Tim and Mike, Christopher Bannan and Robert Ricks have also served as ER-Mets deployed to Houma.



Pictures left and right: Tim Erickson briefs other workers at the ICC concerning tropical weather.



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Buzzword: Decision Support Services, Cont...

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Deepwater Horizon Briefing Webpage

This comprehensive webpage was designed as a “one stop shop” where emergency managers, coast guard officials, BP representatives and even the public can find all of the latest information from the NWS and NOAA concerning the oil spill. The site includes links to all of our decision support products and has recorded over 80,000 visitors since it was introduced in late April.

<http://www.srh.noaa.gov/lix/?n=embriefing>

Twice Daily Forecast Briefing Package

This product (issued twice daily at 4am and 4pm) includes a 60-hour tabular forecast for the site of the Deepwater Horizon rig. It also includes information concerning forecast reasoning, the tropical outlook, any expected hazards in the area and tidal information as well as marine forecasts that cover most of the Gulf of Mexico. The product helps those involved in the mitigation and cleanup work maintain situational awareness and also provides them with information that helps them plan activity for the next several days. For an example of these forecasts, refer to:

<http://www.srh.noaa.gov/media/lix/oilcurrent.pdf>

Hourly Spot Forecasts

Every hour between 4am and 8pm, WFO LIX issues spot forecasts (or forecasts for a specific point) at three different locations. These locations include the site of the actual spill and two shoreline locations – Port Fourchon and Hopedale. These spot forecasts include information such as current conditions including heat index readings in the area, a summary of hazards expected, a radar summary that discusses any shower

and thunderstorm activity in the area, and an hourly forecast that covers about 36 hours. Over 3300 of these forecasts have been issued so far! For examples of these forecasts, refer to:

<http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=lix&date=20100714>

Marine Weather Graphicast

On the front page of our website, WFO LIX is providing a summary marine forecast graphic that covers the next 48 hours. This graphic includes forecast winds and seas as well as any hazards expected. It includes the marine forecasts from the following offices: Lake Charles, New Orleans/Baton Rouge and Mobile. (It previously also included forecasts from the Tallahassee office.)

The graphic is updated at least twice daily around 5am and 5pm. To see what this graphicast looks like, just visit our main website and look for the “Gulf Marine” graphic.

Conference call briefings

In addition to all of the text and forecast products being issued, WFO LIX participates in several conference calls and briefing phone calls each day. The call participants range in scope from senior level staff at NOAA, to local and state emergency management, and even pilot groups who survey the oil spill by air.

“WFO LIX HAS ISSUED
OVER 3300 SPOT
FORECASTS IN
SUPPORT OF THE
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MITIGATION AND
CLEAN UP EFFORTS”



A marine weather graphicast issued from WFO LIX



Forecaster Mike Efferson works on Decision Support Products from the local office in Slidell.

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National Weather Service New Orleans/Baton Rouge...
Where Science Impacts Decisions and Decisions Save Lives



Hurricanes and the Oil Spill

Since the Deepwater Horizon rig sunk and oil began spewing into the Gulf, there have been several questions concerning hurricanes and oil and their potential impacts on one another. Most of these questions have subsided, but a few remain. As we approach the peak of hurricane season, we hope this article will help lay some of those questions to rest. The information here is adapted from the NOAA Oil Spill Response Fact Sheet “Hurricanes and the Oil Spill.”

What are the potential impacts of a hurricane on the oil spill?

The high winds and rough seas associated with a hurricane or tropical storm can help to “weather” the oil. This “weathering” accelerates the biodegradation process and results in a faster break-down of any oil that remains at the surface.

Will oil on the water surface help or hurt a storm as it moves through the Gulf?

Any oil on the surface is not likely to have a significant impact on a storm’s intensity. Most of the thick oil has already been collected or skimmed from the Gulf’s surface. All oil that remains on the surface is very patchy and a hurricane or tropical storm would likely be very large in comparison to the current size of these patches, resulting in minimal impacts to the storm.

Will there be oil in a hurricane’s storm surge?

Storm surge from a hurricane or tropical storm may carry oil into the coastline and inland as far as the storm surge reaches. However, the eventual impacts will be greatly dependent on the motion and strength of the storm and how much oil was transported within the surge. The transport of oil within the storm surge could also result in oil-contaminated debris. Remember too, that hurricanes and tropical storms can cause damage to additional oil rigs and result in additional oil being released into the Gulf—similar to what happened during Hurricanes Katrina and Rita.

Is it possible for oil to mix into the rain from a hurricane or tropical storm?

The answer is a resounding NO. Hurricanes are drawn in water vapor from an area much larger than the farthest reaches of the oil spill. The water vapor condenses into cloud droplets which then form into rain droplets. These clouds contain no oil and thus no oil can be “rained out” of the clouds.

For the full NOAA fact sheet, please see:

http://www.noaanews.noaa.gov/stories2010/PDFs/hurricanes_oil_factsheet.pdf

